



constructed lakes, ponds, and reservoirs

Characteristics

Constructed lakes and reservoirs usually are made by damming intermittent stream or river channels. There are four large reservoirs constructed for flood control that each have several thousand acres of surface area.

About 200 smaller impoundments have been created to provide recreational opportunities and/or municipal water supplies. Constructed lakes also include surface mine lakes. Constructed lakes range from a few to several thousand acres in size. Lakes are bodies of standing water with plants along the shores, but with much open water. Sunlight does not reach the bottom in all areas. Water quality is variable and is dependent on the amount of rainfall, soil erosion, and size of the constructed lake.

The smaller constructed water bodies are ponds. They usually have a surface area smaller than 10 acres and sunlight is able to reach the bottom in all areas. Plants grow along the shore and there is some open water. Ponds are constructed by damming a valley and/or excavation.

Recreation

Primary – boating, canoeing, fishing, hunting, swimming, trapping, water skiing, wildlife observation and/or photography

Lake/pond/reservoir areas – biking, camping, hiking

What Lives Here?

Constructed lakes are greatly impacted by activities in their watersheds. Depending on size and water quality, they can support a diversity of plants and animals. Organisms may

be found throughout, on top of, and along the edges of these water bodies. Bottom dwellers include crayfish, mussels, and early life stages of some insects. There also are free swimming organisms like fish and tiny, free-floating organisms called plankton. Other animals such as water striders and fisher spiders commonly are on the water's surface. Vegetation is limited to the shallow edges from the shore out to the depth where sunlight reaches the bottom. (This depth varies depending on water clarity.) Iowa lakes are very highly productive (eutrophic to hypereutrophic) with many suspended particles and a great variety of species.

Organisms found in this CD:

American coot, American lotus, American white pelican, American toad, American wigeon, anabaena, aquatic sowbug, Asian clam, backswimmer, bald eagle, bank swallow, beaver, belted kingfisher, big brown bat, bigmouth buffalo, bigmouth shiner, black bullhead, black crappie, black willow, bladderwort, blue flag iris, bluegill, blue skullcap, blue-winged teal, bluntnose minnow, boneset, broadleaf arrowhead, bullfrog, bulrush, buttonbush, caddisfly, Canada goose, cardinal flower, cattle egret, central newt, channel catfish, chara, chlorella, clearweed, cliff swallow, common carp, common cattail, common shiner, coontail, Cope's gray treefrog, copepod, cottonwood, crane fly, crawfish frog, cricket frog, crawling water beetle, cylindrical papershell, damselfly, deer fly, devil crayfish, diatoms, double-crested cormorant, dragonfly, duckweeds, earthworm, emerald shiner, euglena, Eurasian watermilfoil, false map turtle, false nettle, fathead minnow, fatmucket, fingernailclams and peacocks, fisher spider, fog fruit, Fowler's toad, fragile papershell, freshwater drum, freshwater sponge, giant floater, giant water bug, gizzard shad, golden shiner, goldfish, Graham's crayfish snake, gray treefrog, great blue lobelia, great blue heron, greater yellowlegs, green heron, great plains toad, green frog, green sunfish, hooded merganser, horse fly, hydra, Johnny darter, killdeer, largemouth bass, leafy pondweed, least weasel, leech, left-handed snails, lilliput, longnose gar, long-tailed weasel, mayfly, mallard, mapleleaf, marsh wren, meadow jumping mouse, microcystis, midge, mink, mosquito, muskellunge, muskrat, northern leopard frog, northern shoveler, northern water snake, operculate snails, orangespotted sunfish, osprey, paper pondshell, pied-billed grebe, pickerel frog, pink heelsplitter, plains leopard frog, planaria, pondmussel, prairie cord grass, predaceous diving beetle, prothonotary warbler, protozoa, pumpkinseed, purple ammarnia, purple loosestrife, quillback, raccoon, red-eared turtle, red-sided and eastern garter snakes, red shiner, red-winged blackbird, redear sunfish, right-handed snails, ring-billed gull, river carpsucker, river otter, rusty crawfish, sago pondweed, scud, semipalmated plover, semipalmated sandpiper, shortnose gar, silver-haired bat, silver maple, slender madtom, smallmouth bass, smallmouth buffalo, snapping turtle, southern leopard frog, spatterdock, spike, spiny softshell, spirogyra, spottail shiner, spotted sandpiper, spotted touch-me-not, spring peeper, stonefly, straw-colored nutsedge, tadpole madtom, threehorn wartyback, threeridge, tiger salamander, toad bug, tree swallow, trumpeter swan, virile crayfish, volvox, walleye, warmouth, water boatman, water flea, water mites, water milfoil, water scavenger beetle, water scorpion, water

smartweed, water strider, watermeal, western chorus frog, western painted turtle, western ribbon snake, whirligig beetle, white amur, white bass, white crappie, white heelsplitter, white sucker, wild millet, winged loosestrife, wood duck, Woodhouse's toad, yellow bass, yellow bullhead, yellow-crowned night-heron, yellow perch, yellow warbler

Locations in Iowa

More than 200 lakes, 87,000 farms ponds, and four large control reservoirs have been constructed in Iowa. The flood control reservoirs are Coralville (Johnson County), Saylorville (Polk County), Rathbun (Appanoose County), and Red Rock (Marion County). Most constructed lakes and ponds are in the southern half of the state where clay soils readily form a water-tight basin.

Bibliography

Iowa Department of Natural Resources. 2001. *Biodiversity of Iowa: Aquatic Habitats* CD-ROM.